

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2003P13506WO	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2004/051882	International filing date (<i>day/month/year</i>) 24.08.2004	Priority date (<i>day/month/year</i>) 08.09.2003	
International Patent Classification (IPC) or national classification and IPC H04L12/56			
Applicant SIEMENS AKTIENGESELLSCHAFT			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 1 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/051882

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

 - international search (Rule 12.3 and 23.1(b))
 - publication of the international application (Rule 12.4)
 - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished
 the description:
 pages 1–7 _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
 the claims:
 nos. 2–11 _____ as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19
05.07.2005 with letter
 nos.* 1 _____ received by this Authority on of 30.06.2005
 nos.* _____ received by this Authority on _____
 the drawings:
 sheets 1 _____ as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	International application No. PCT/EP2004/051882
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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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1. Statement

Novelty (N)	Claims <u>1-11</u>	YES
	Claims _____	NO
Inventive step (IS)	Claims _____	YES
	Claims <u>1-11</u>	NO
Industrial applicability (IA)	Claims <u>1-11</u>	YES
	Claims _____	NO

2. Citations and explanations (Rule 70.7)

1. Reference is made to the following documents:

D1: "TCP/IP Tutorial and Technical Overview", IBM REDBOOKS, [Online] August 2001 (2001-08), pages 180-197, XP002306248 USA, found on the Internet:
URL:<http://www.redbooks.ibm.com/redbooks/pdfs/gg243376.pdf>> [found on 2004-11-15]

D2: WO 97/01230 A (MCI COMMUNICATIONS CORP), 9 January 1997 (1997-01-09)

D3: LEE K J ET AL: "DISTRIBUTED ROUTING USING TOPOLOGY DATABASE IN LARGE COMPUTER NETWORKS" NETWORKS: EVOLUTION OR REVOLUTION? NEW ORLEANS, MAR. 27 - 31, 1988, PROCEEDINGS OF THE ANNUAL JOINT CONFERENCE OF THE COMPUTER AND COMMUNICATIONS SOCIETIES. (INFOCOM), NEW YORK, IEEE, US, Vol. CONF. 7, 27 March 1988 (1988-03-27), pages 593-602, XP000043740, ISBN 0 8186-0833-1

2. Claim 1 fails to meet the requirements of PCT Article 33(1) because its subject matter does not involve an inventive step (PCT Article 33(3)). The reasons for this are as follows:

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Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

2.1 Document D1, which is considered to be the prior art closest to the subject matter of claim 1, discloses the following (the references in parentheses are to D1):

A method for retiring inter-domain routes, in which:

- a router in a first autonomous system detects the failure of a link between two autonomous systems (paragraph 4.9.3.5);
- the router sends an update message to a second autonomous system to effect a cancellation of the routes that are no longer usable (paragraph 4.3.9.4);
- a router in the second autonomous system retires the routes in question (paragraph 4.3.9.4).

2.2 The subject matter of claim 1 differs from what is known from D1 in that the update message reports failed segments of inter-domain routes, instead of indicating which routes are to be cancelled. Thus the information communicated relates to segments that might form parts of routes which are no longer usable, rather than to whole routes.

The advantage is a reduction in the amount of information that needs to be communicated. Instead of reporting whole routes, the messages specify only the segments which are actually affected in each case. This significantly reduces the amount of network traffic.

2.3 With regard to this feature, document D3 describes the

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PCT/EP2004/051882**Box No. V** **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

same advantages as the present application. In view of the comments in paragraphs 1 and 3.2 of document D3 a person skilled in the art would consider it a routine procedure to combine all the features specified in claim 1. Hence the statement of the problem cannot be regarded as inventive (PCT Article 33(3)).

3. Dependent claims 2 to 11 do not contain any features that meet the PCT requirements in respect of novelty or inventive step when combined with the features of any of the back-referenced claims (see documents D1, D2 and D3 and the passages cited in the international search report).